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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,092	01/26/2001	William D. Fisher	10003512-1	7692

7590 09/24/2004

AGILENT TECHNOLOGIES  
Legal Department, 51U-PD  
Intellectual Property Administration  
P.O. Box 58043  
Santa Clara, CA 95052-8043

EXAMINER

GORDON, BRIAN R

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/771,092

Applicant(s)

FISHER, WILLIAM D.

Examiner

Brian R. Gordon

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 35-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14, 35 and 36 is/are allowed.
- 6) ☒ Claim(s) 37-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. In view of the Appeal Brief filed on July 13, 2004, PROSECUTION IS HEREBY REOPENED. A new rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Claim Objections***

2. Claims 2 and 38 are objected to because of the following informalities: Claims 2 and 38 are duplicate claims. It appears as if claim 38 is intended to depend upon claim 37. For the purpose of examination, the examiner has assumed claim 38 depends upon claim 37. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 37-40 are rejected under 35 U.S.C. 102(a) as being anticipated by Fouillet WO 00/56463 (US 67,722,580).
5. Fouillet discloses a liquid drop ejection device comprising: a non-deformable body 28 provided with a cavity filled with a liquid 27 and one (or several) orifices or nozzles 29, this body having a solid wall 30; a device 23 for striking this wall 30, comprising a mass 24 moved by an actuator 25.

The actuator 25 acts on the mass 24 such that it strikes the wall 30 in a movement along the axis of the nozzle 29 to supply a large pulse to the liquid (see abstract).

The propagation of the shock through the wall 30 and the liquid 27 causes the ejection of one (or more) drops 26 of liquid. In an ideal case, the physical phenomena involved could be assumed to be the same as for an elastic shock, particularly because the various parts of the device involved in shock propagation will be less absorbent. In particular, a rigid wall will be more efficient in transmission of energy.

The device according to the invention can be used in many different fields; for example for printer heads, or for biological applications with micropipettes for analysis, or liquid deposition systems or systems for deposition of chemical or biological reagents onto biochips, or for the distribution of a liquid in the form of droplets (injectors, etc.).

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fouillet et al. as applied to claims 37-39 above, and further in view of Ellson et al. US 6,458,308.

Fouillet et al. do not disclose that the device comprises the device is employed for arraying DNA.

Ellson et al. disclose a dispensing device employed to eject a plurality of immiscible fluids including DNA from reservoirs in order to form a pattern, e.g., an array, on the substrate surface.

It would have been obvious to one of ordinary skill in the art to recognize since the device may be employed to dispense biological fluids it would have been obvious to recognize that DNA (a biological fluid) may be dispensed therefrom.

#### ***Allowable Subject Matter***

9. Claims 1-14 and 35-36 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach nor fairly suggest a method comprising dispensing

drops from a pulsejet and striking the pulse jet at least once, wherein the pulse jet comprises a chamber and a thermoelectric or piezoelectric ejector in the chamber. See also applicant's previous remarks.


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

brg

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700